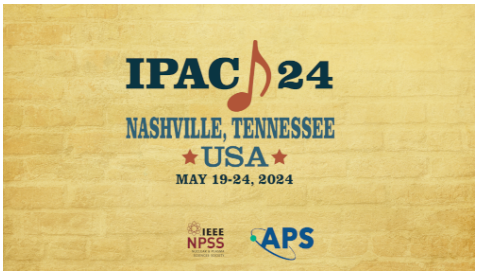

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Towards attosecond x-ray sources driven by infrared free-electron laser oscillators

Monday, 20 May 2024 16:00 (2 hours)

We have launched a research program on attosecond X-ray sources utilizing high-harmonic generation (HHG) driven by an infrared free-electron laser (FEL) oscillator. As the results of the first six years of the program, we have improved the FEL performance at KU-FEL and LEBRA-FEL to achieve FEL intensity high enough for HHG. We observed HHG from a solid target and tunnel-ionizing electrons in gas, both of which indicate high-field photon reactions. In the present paper, we report on the recent status and future perspectives of the program.

Footnotes

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